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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,070	04/21/2005	Kenji Yamane	OGW-0364	6097

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RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/532,070

Applicant(s)

YAMANE, KENJI

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>042105,042505</u> . | 6) <input type="checkbox"/> Other: ____ |

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1) Claims 3, 4 and 5 do not end in a period. objected to because of the following informalities: Claims 3, 4 and 5 do not end in a period.. Appropriate correction is required.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear if the angles alpha and beta are determined with respect to the radial direction, axial direction or circumferential direction. In claim 1, it is suggested to change "an inclination angle β greater than the inclination angle α " to --an inclination angle β with respect to the radial direction greater than the inclination angle α with respect to the radial direction--.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan 303

5) Claims 1, 6-10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 303 (JP 6-166303) in view of Europe 989 (EP 602989).

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Japan 303, directed to reducing noise without lowering water discharging performance and maneuvering stability, discloses a pneumatic tire having a directional tread pattern comprising a center circumferential groove between a pair of ribs, main circumferential grooves, inclined subgrooves 3, middle blocks and shoulder blocks. See figure 1. Japan 303 teaches reducing noise by inclining the step in wall face of a block at angle α with respect to the radial direction of 5 degrees or more and inclining the kick out wall face of the block at an angle β of 10 degrees or more wherein angle α is smaller than angle β . Japan 303 does not recite chamfering the edges of the blocks.

Europe 989 discloses a pneumatic tire having a directional tread comprising a center circumferential rib, middle blocks BM, shoulder blocks BS, circumferential grooves 3 and inclined axial grooves 4. Europe 989 teaches chamfering edges of the blocks to reduce noise and prevent increase in conicity force with wear. The radius of the chamfer is 0.3 to 3 mm.

As to claim 1, it would have been obvious to one of ordinary skill in the art to chamfer the edges of Japan 303's shoulder blocks since Europe 989, also directed to a directional tread pattern, suggests chamfering edges blocks to reduce noise and prevent increase in conicity force with wear.

As to claim 6, Europe 989 suggests using a radius of 0.3 to 3 mm for the chamfer.

As to claims 7-10 and 13-15, see figure 1 of Japan 303.

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6) Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 303 in view of Europe 989 as applied above and further in view of Japan 609 (JP 6-270609).

As to claims 2-5, it would have been obvious to use the specific angle alpha (claims 2 and 3) / specific angle beta (claims 4 and 5) when using width W and depth D as claimed in view of (1) Japan 303's teaching to reduce noise and form the wall faces using angles alpha of 5 degrees or more and angle beta or 10 degrees or more wherein angle alpha is smaller than angle beta, (2) Japan 609's suggestion to use a width W of 2-5 mm for shoulder grooves of a directional tread and (3) it is taken as well known / conventional per se in the tire tread art to use a depth of 6-11 mm (e.g. 8-11 mm) for grooves of a passenger car tire.

7) Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 303 in view of Europe 989 as applied above and further in view of Japan 505 (JP 64-36505).

As to claim 16, it would have been obvious to use the claimed groove widths in view of Japan 505's suggestion to gradually decrease the groove widths of circumferential grooves of a directional tire tread pattern from the center to the side edges of the tire to reduce noise.

Japan 104

8) Claims 1 and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 104 (JP 62-026104) in view of Japan 303 and Europe 989.

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Japan 104 discloses a pneumatic tire for a passenger car comprising a center rib, circumferential grooves, inclined subgrooves, central blocks, middle blocks and shoulder blocks. Japan 104 does not recite using angles alpha and beta for the shoulder grooves.

As to claims 1 and 6-10, it would have been obvious to one of ordinary skill in the art to use the claimed angles alpha and beta for blocks separated by the shoulder grooves of Japan 104's directional tire tread pattern since Japan 303, also directed to a directional tire tread pattern, suggests reducing noise and forming wall faces of blocks using angles alpha of 5 degrees or more and angle beta or 10 degrees or more wherein angle alpha is smaller than angle beta.

Furthermore, it would have been obvious to one of ordinary skill in the art to chamfer the edges of Japan 104's shoulder blocks since Europe 989, also directed to a directional tread pattern, suggests chamfering edges blocks to reduce noise and prevent increase in conicity force with wear.

As to claims 11 and 12, the circumferential groove on each side of the center rib comprises convex groove portions. See figure 2.

Remarks

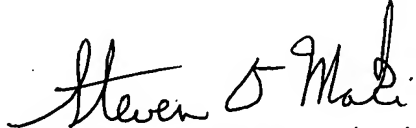
- 9) The remaining references are of interest.
- 10) No claim is allowed.
- 11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
January 1, 2007


STEVEN D. MAKI 1-4-07
PRIMARY EXAMINER